

**NE Ethanol Production and Treated Seed**  
**October 1, 2020**

**Background:**

- AltEn, LLC operates an ethanol facility located near Mead, NE. This facility has been in operation for approximately 5 years and uses treated seed corn and some amounts of other treated seed in its production process. It appears this seed is provided to the facility free of charge.
- The ethanol process by-product is wet cake, which was previously offered as a soil conditioner and received approval from NDA for this use. NDA's initial approval was offered without knowledge that the facility was using treated seed.
- NDA and NDEE contacted R7 in early 2019 regarding the AltEn site. They had received numerous complaints about the facility and sought input on methods to manage the wet cake, which was stockpiled outside in large volumes.
- NDA sampled the wet cake and identified residues of numerous seed treatment pesticides including neonicotinoids which are long lasting pesticides that have special restrictions for their use due to their potential effects on plants and wildlife, especially bees. OPP requires seed bag tags to include language prohibiting the use of treated seed for ethanol production unless there is an assurance of no detectable residues in byproduct used for agronomic purposes, and NDA took steps to prevent further use of the by-product as a soil conditioner.
- Following NDA's decision, NDEE determined the material to be a solid waste and has requested the facility to landfill the wet cake.

**Current Status:**

- The facility continues to operate and generates approximately 150 tons of wet cake per day. It has landfilled approximately 32 K tons (1,500 truckloads) of wet cake. Estimates of remaining wet cake range from 50 to 80 K tons.
- A recent NDEE inspection during a rainfall event indicated poor compliance with SWPPP: uncontrolled runoff (observed wet cake leaving site), the lack of BMPs and poor general housekeeping. Some colored liquid was not contained and had been pumped to a low point that discharged to an outfall leading to a stream. NDEE indicated the stream flows through a UNL research farm. A UNL professor has raised concerns to EPA and NDEE regarding alleged impacts to managed bees on the farm.
- Ground water sampling is underway and data is expected to be available in November.
- The facility has requested a permit to allow the material to be land applied as a means of disposal. NDEE requested assistance in reviewing the data and evaluating the potential for an acceptable agronomic rate that would enable the material to be land applied.
- OPP has indicated that it does not believe the product should be land applied if it contains detectable residues. Many seed bag tags include the prohibition, but the agency has historically not enforced seed bag tags. OPP is moving to include similar language in Section 3 labels to enhance enforceability.
- OPP concerns:
  - Some of the pesticides are persistent, mobile and/or systemic.
  - There are numerous active ingredients involved.
  - Addition of these pesticides to sites which may already be receiving applications via the actual planting of similarly treated seed would inappropriately increase the application rate of the pesticide.

- There is potential for the uptake of these pesticides to crops/plants on these sites where use has not been approved and for which there is no data/understanding of potential impacts.
- OPP's position was discussed during the last call with the state. NDEE has continues to explore land application and has sought assistance in evaluating data provided from the facility intended to support land application as a waste.
- ORD is willing to evaluate its ability to assist at some level in the evaluation of this issue but will need guidance as to what the Region would deem helpful/appropriate. They are not anticipating conducting original research but rather could consult and provide recommendations of approaches worthy of exploration.

**Enforcement Considerations:**

- NDEE has retained enforcement lead throughout the agencies' coordination on this facility. NDEE shared that there appear to be CWA, CAA, and solid waste violations at the facility, which have been referred to the state AG. We anticipate participation of the AG's office in a future call to hear more about path forward on these violations.
- Despite initial resistance from the facility, it has landfilled approximately a third of the existing stockpiled wet cake at the request of NDEE but a larger quantity remains on site.
- ECAD is reevaluating the applicability of FIFRA and RCRA in light of additional information provided, but believes it has a strong basis for use of a RCRA 7003 order if the state refers the case or is not able to address the remaining stockpiled wet cake.

**Options Discussion:**

- 1 Request ORD to provide input/recommendations into research avenues for how best to reduce residues to non-detect levels and, an alternative to land application as disposal method. This approach would be consistent with OPP's intent with label requirements. A facility in KS does utilize smaller quantities of treated seed and some years ago, claimed to achieve no detectable residues in order to apply to their own land for disposal. Will be following up with this facility to assure its claim of non-detect is accurate. If so, its system could serve as a model. However, more needs understood about its processes and the detection limits used.
- 2 Request ORD to provide input/recommendations regarding the potential for land application of the material as a waste while allowing detectable residues. This option would result in one office looking for methods to do something another office views as prohibited or not recommended; such a conflict may require OGC input.